

Name _____

FROM JEANS TO GENES STUDENT OBSERVATIONS

1. Describe only one chromosome. What are the segments called? What do these segments control?
2. Compare the two chromosomes. Why are they called homologous chromosomes?
3. How are homologous chromosomes alike?
4. How are homologous chromosomes different?
5. What does homozygous or pure breed mean? Give an example from the chromosome model.
6. What does heterozygous or hybrid mean? Give an example from the chromosome model.

7. Imagine that sock genes control the chest color of a blackbird. Define the following terms as students demonstrate the concepts with blue and white socks and blue and white t-shirts.

genotype:

phenotype:

dominant genes:

recessive genes:

APPLICATION OF TERMS

Imagine that sock genes control the color of a blackbirds chest. Blue socks are dominant and white socks are recessive.

1. Cross homozygous white with homozygous blue. What fraction of offspring will be white? blue?
2. Cross homozygous blue with heterozygous. What fraction of offspring will be white? blue?
3. Cross homozygous white with heterozygous. What fraction of offspring will be white? blue?
4. Cross two heterozygous. What fraction of offspring will be white? blue?

